

Subject: Minutes: DSS-13 Weekly Meeting 08-24-09

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Minutes: DSS-13 Weekly Meeting on 08-24-09

DSS-13 Science/Engineering Activities:

Removing of AL Tapes on the Main Dish: We covered AL tapes over the gaps between the dish panels in August 1999. It was an experiment test to see how much the antenna noise temperature will be reduced and the reductions were about 0.30K at X-band and 0.5K at Ka-band. Good portion of the tapes were ripped off due to the weather and caused higher surface rms and noise temperature. The tapes need to be removed. We had 10 people working on it on Aug 18 for 3 hours (under 105F+ weather) and the task has been completed.

Uplink Array Moon Bounce: On DOY 234, we had an uplink array moon bounce experiment on X-band positions 2 and 6. This is the first time that we tried at position 2 and obtained poor result because of the band limits of the S/X dichroic and of the LNA. We obtained good data from position 6 (normal operation position).

GAVRT LCROSS Track/CALB: There were several GAVRT remote operation activities last week. There was GAVRT calibration work on DOYs 229, 230, 231 and 232. The LCROSS tracks were on DOYs 230 and 231. We have not received report of any problem related to these activities.

Maser Refurbishing Work: Larry Schrader informed us that problem with the superconducting magnet has been solved. All the prelim test results in the lab look very good. For example, gain stability is only 0.017 dB/10sec while typical DSN is about 0.03 dB/10sec. The noise temperature measurement will be performed on Tuesday, Aug 25. The LNA noise temperature is expected to be about 5K to 6K.

Pointing Models: There was a teleconference with D. Rochblatt on 8/24/09 while he is in MDSCC. The date was set on Aug 28 for data collection for DSS-13 pointing model.

DSS-13/IF to ACME: We are working to procure an additional low noise amplifier (Ortel 10103A, 50-600MHz or equivalent).

DSS-13 Power and UPS protection: Gary talked to Bob Thomas last week about the missing battery. Bob informed us that he has additional battery that could be used for our 18kW UPS. Gary will look in to it.

Watt